

# Work Order ID 70230

Wednesday, June 01, 2011 10:03:37 AM



Page 1

Item ID: D350-607-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Utility-Basket, LH

Start Date: 6/1/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 6/6/2011 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: *MC*

Date: 11-06-01 Tooling:

QC:

Date: SPC (Y/N):

Date:

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID To

Draw Nbr	Revision Nbr
D350-607-1	Rev A

<b>DART</b> Dart Aerospace Ltd. 1270 ABERDEEN ST. HAWKESBURY, ONT. CANADA K6A 1K7 TEL: 1-613-632-6200			
TO APPROVAL # 09-89			
TEL: 1-613-632-6200			
P/N	D350-607-043A	QTC	CHG001
DESC.	Heli-Utility-Basket	STC	SH94-14
LOT	B65567	STC	SR00213NY
MODEL	AS350/355	STC	
MADE IN CANADA		02729-1	

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPPD350-607-041 CHG008

*8 labels*

101

0.00



Small Fab

Memo

0.00

Small Fab

pull from stock:

1 x D350-607-041A B

*3 65567*

Remove gas spring D3953-1 gas spring, D3953-5 stud, D3953-7 spacer—  
and all hardware and discard

*11/6/11*

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Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

102

0.00



Large Fab

Memo

0.00

-Tack weld all strands of mesh that were trimmed for gas strut  
-weld in D2327-3 bushings in both ends of basket per D350-607-1 Rev.A  
~~weld in D2327-3 bushings in drilled holes for gas strut and grid bush.~~

- PATCH HOLES / CLOSE SLIT HOLES WHERE GAS STRUT WAS INSTALLED (4 PL ON BASE + 4 PL ON LID). 11.06.02

103

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Memo

0.00

Quality Control

11-06-02

104

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Smoloz

(X1)

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Cust Item ID:

Required Date: 6/6/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

105

0.00



Powdercoat

Memo

0.00

Powder Coating

Touch up area A/R gloss white, per QSI 005

1 0 11-02

106

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

0 11-06-03

120

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

Assemble as per Dwg D350-607  
Seal support gusset seam with white sikaflex-291  
Batch:             
Expiry date: 6/1/11

EF 11/06/03 ①

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Item ID: D350-607-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Utility-Basket. LH

Start Date: 6/1/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 6/6/2011 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

200 lbs

0.00

8 u/06/03



Quality Control

\*\*\*\*\*Ensure label for weight capacity is correct\*\*\*\*\*

140

Pick Kit

0.00



Packaging

Memo

Repackage per PPP  
using new B/N, ensure all kit parts are included.

0.00

10 u/6/20

150

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

8 u/06/03

Quality Control

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Page 5

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Start Date: 6/1/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 6/6/2011 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

0.00



Packaging

Packaging

Memo

0.00

Repackage per PPP using new B/N  
new labels req'd  
Identify and pack for shipping as per PPP D350-607-041  
Location: \_\_\_\_\_

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*Page 2*

*11/6/32*  
*MF*  
*11-06-23*

# Picklist Print

Wednesday, June 01, 2011 10:03:32 AM

Page 1

Work Order ID: 70230

Parent Item: D350-607-041

Parent Item Name: Heli-Utility-Basket, LH



Start Date: 6/1/2011

Required Date: 6/6/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:M 05.09.02 Added D2856-400-720 KJ/JLM  
IPP Rev:N 07-12-21 ECN1068 DD  
per ECN10-545 DD 10.04.16 verified by:EC

IPP Rev:O as

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2327-3 Manufactured No



Spacer Bushing

Location

WA

Loc Qty

9

Loc Code

9

D2258-200 Manufactured No



Placard 200lb

Location

ST505

Loc Qty

11

Loc Code

1

D2332-041 Manufactured No



Lid Prop Assembly 6.69" long

Location

ST512

Loc Qty

12

Loc Code

68830

2

69600

10

st572

1

68830

1

D2728-3 Manufactured No



Dart Logo label

110

Each

0.0000

2

2

11.06.02

11.06.02

EP 11/06/03

EP 11/06/03

# Picklist Print

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Page 2

Work Order ID: 70230

Parent Item: D350-607-041

Parent Item Name: Heli-Utility-Basket, LH



Start Date: 6/1/2011

Required Date: 6/6/2011

Start Qty: 1.00

Required Qty: 1.00

AN4-22A

Purchased

No

110

Each

209.0000

1

1



Bolt



EP 11/06/03

Location

Loc Qty

Loc Code

ST359

209

114784

59

116419

50

117313

100

AN4-24A

Purchased

No

110

Each

75.0000

1

1



Bolt



EP 11/06/03

Location

Loc Qty

Loc Code

ST359

75

115835

15

117514

60

\*AN960JD416L

NAS1149D0416J

Purchased

No

110

Each

3.0000

2

2



Washer



EP 11/06/03

40M114884 (2)

Location

Loc Qty

Loc Code

FP-B

3

110153

3

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Shop Packet Print

Page 2

# Picklist Print

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Work Order ID: 70230

Parent Item: D350-607-041

Parent Item Name: Heli-Utility-Basket, LH



Start Date: 6/1/2011

Required Date: 6/6/2011

Start Qty: 1.00

Required Qty: 1.00

AN970-4

Purchased

No

110

Each

467.0000

4

4



Washer



*EP 4/06/03*

Location

Loc Qty

Loc Code

ST342

400

117795

400

ST344

14

115936

14

ST349

53

116900

3

117317

50



4

4

MS21042L4

Purchased

No

110

Each

5,883.000

4

4



Nut



*EP 11/06/03*

Location

Loc Qty

Loc Code

ST300

5883

116823

583

117441

3000

117601

800

117885

1500

2

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Shop Packet Print

Page 3



## 2.0 GENERAL NOTES

### COMPATIBILITY

Compatibility of this installation with the aircraft is the responsibility of the installer. Ensure that this installation does not conflict with a previous modification.

### CONTINUING AIRWORTHINESS

This installation should be maintained in accordance with the Instructions for Continued Airworthiness ICA-D350-607.

## 3.0 INSTALLATION PROCEDURE

For installation of D350-607-041/-041A/-043/-043A/-045/-045A/-047/-047A *Heli-Utility-Basket™*.

- 3.1 **NOTE:** For aircraft equipped with high gear, the Dart *Heli-Utility-Basket™* is compatible with Dart D350-591 high-gear steps. The D350-591 step height must be set as shown in Figure 1 to ensure that the cargo doors will open with the basket installed. For aircraft equipped with low gear, the Dart *Heli-Utility-Basket™* is **not** compatible with Dart D350-591 low gear steps; any Dart low gear step will have to be removed before basket installation.
- 3.2 The D350-607-041/-043/-045/-047 *Heli-Utility-Basket™* may be installed on either the LH or RH side of the aircraft. For RH installations, the D2332-041 Prop Assembly should be moved to the aft end of the basket. Use existing hardware and ensure nuts face aft.
- 3.3 Install the D2732-030 Rubber Cushions, D2230-1 Lugs and D2324 Strut onto the basket as shown in Figures 2 and 3, using the AN4 hardware shown.  
**NOTE:** The AN4-15A bolts may be replaced with a stainless steel positive locking quick release pin with a minimum double shear strength of 2400 lbs and with a 1.0 inch grip length and 0.25 inch diameter (Avibank: BLC4B10S, BLC4TA10S, BLC4R10S, BLC4LA10S; MS Number: MS17984C410, MS17985C410, MS17986C410, MS17987C410)
- 3.4 Present the basket to the crosstubes. Propping the basket at the appropriate height can facilitate installation. If the basket is being installed on high gear with Dart D350-591 steps, temporarily place a 0.063" (1.6mm) shim on the step and rest the basket on the shim. Remove shims after bolts are torqued.
- 3.5 Attach the basket with the D2230-3 Clamps and AN4 hardware shown in Figure 2 and 3. Leave bolts loose to allow for adjustment.
- 3.6 Tighten clamp bolts once height is positioned properly. Do not exceed torque of 60 in-lb (6.8 Nm) on the nuts. **CAUTION:** Over-torquing the nuts could lead to structural damage of the clamps.

## 4.0 INSTALLATION OF OPTIONAL KITS

### 4.1 D350-607-141 AUTOMATIC LID OPENER INSTL (FOR USE ON -041 BASKET)

**NOTE:** Once this modification is complete you will not be able to re-install the D2332-041 Prop Arm.

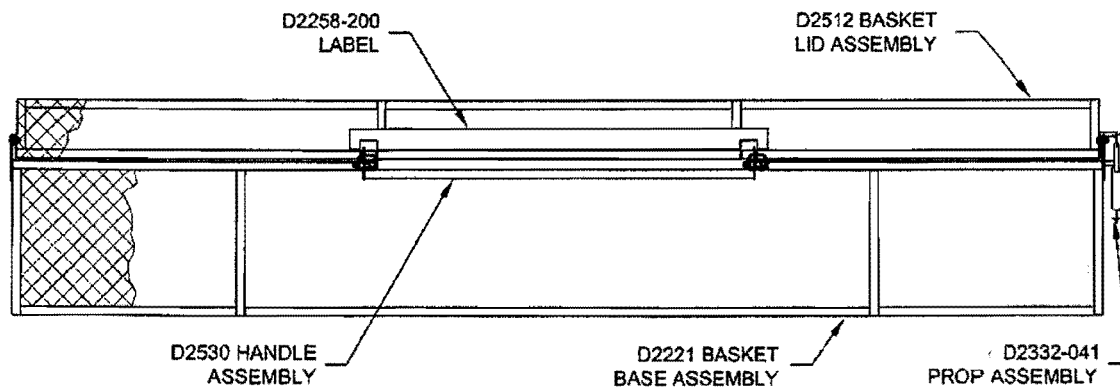
- 4.1.1 Remove the D2332-041 Prop Arm.
- 4.1.2 Grind Flush the D2327-3 Spacer Bushing on both ends of the Basket as shown in Figure 8a (it is permissible to grind all 4 Spacers Flush). Touch up paint Per ICA-D350-607 Section 5.1 Item 4.
- 4.1.3 Locate the D3953-1 Gas Spring Bracket as shown in Figure 8a. Trim Steel Mesh locally as required. Touch up paint per ICA-D350-607 Section 5.1 Item 4. Transfer mark and drill 2X Ø0.194 holes thru the Basket lid square tube structure as shown in Detail M. Install the D3953-1 Gas Spring Bracket & D3953-13 Gas Spring Spacer using 2X AN3C16A Bolt, 2X NAS1149C0332R Washer & 2X MS21043-3 NUT as Shown in View P-P.

- 4.1.4. Locate the D3953-5 Gas Spring Stud as shown in Figure 8a. Trim Steel Mesh locally as required. Touch up paint per ICA-D350-607 Section 5.1 Item 4. Transfer Mark and Drill 2X Ø0.194 holes thru the Basket base square tube structure as shown in Detail L. Fasten D3953-5 IAW View N-N using 2X AN3C11A Bolt, 2X NAS1149C0332R Washer & 2X MS21043-3 Nut.
- 4.1.5. Install 1X D3953-11 Gas Spring Spacer onto the D3953-5 Stud as shown in View N-N. Install the large end of the D3969-1 Gas Spring onto the D3953-5 Gas Spring Stud and Fasten in Place using 1X D3953-9 Gas Spring Washer, 1X NAS1149C0432R Washer, 1X AN310-4 Castellated Nut & 1X MS24665-212 Cotter Pin as shown in View N-N. Install Cotter Pin per MS33540 or AC43.13 chapter 7-127.
- 4.1.6. Insert the D3953-3 Gas Spring Stud into the D3953-1 Gas Spring Bracket & Insert the D3953-7 Gas Spring Spacer onto the D3953-3 Gas Spring as Shown in View P-P. Raise the Basket lid and install the rod end of the D3969-1 Gas Spring onto the D3953-3 Gas Spring Stud using 1X D3953-9 Gas Spring Washer, 1X NAS1149C0432R Washer, 1X AN310-4 Castellated Nut & 1X MS24665-212 Cotter Pin as shown in View P-P. Install Cotter Pin Per MS33540 or AC43.13 Chapter 7-127.  
**NOTE:** The D3953-3 Gas Spring Stud can be held in place with a 9/16 open end spanner/wrench.  
**NOTE:** With the lid in the closed position the Gas Spring should not be fully compressed.
- 4.1.7. Repeat steps 4.1.2 through 4.1.6 at the other end of the Basket.
- 4.1.8. Test the installation. If installed properly the Gas Springs should assist the Basket user in both opening and closing the basket lid.

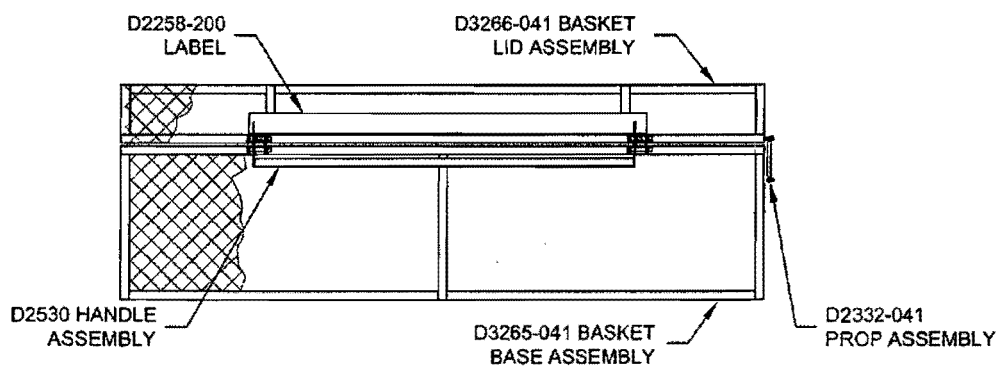
#### 4.2 D350-607-143 AUTOMATIC LID OPENER INSTL (FOR USE ON -043/-047 BASKET)

**NOTE:** This kit may be installed at either end of the Basket. However, the Prop Arm must be removed in either case as it will interfere with the function of the Gas Spring.

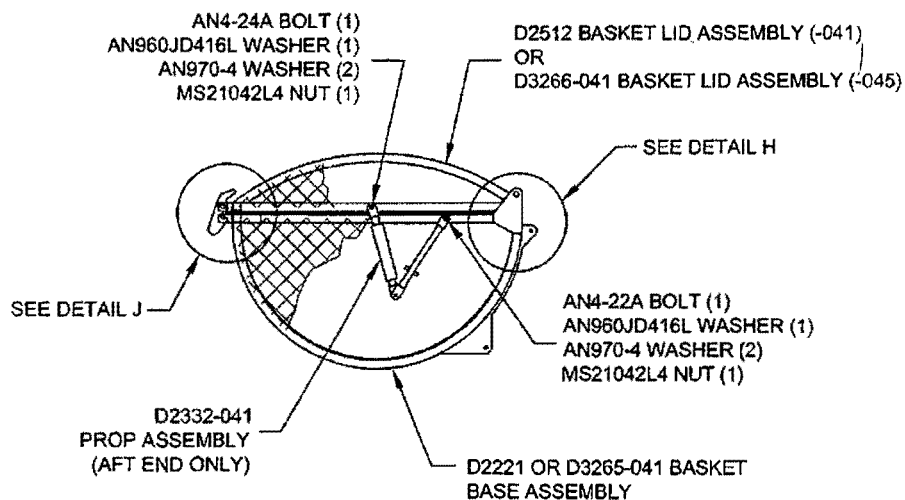
- 4.2.1 Remove the D2332-041 Prop Arm.
- 4.2.2 Grind flush the D2327-3 Spacer Bushing on the end of the Basket where the lid opener is to be installed as shown in Figure 9a (it is permissible to grind all 4 spacers flush). Touch up paint per ICA-D350-607 Section 5.1 Item 4.
- 4.2.3 Locate the D3953-15 Gas Spring Bracket as shown in Figure 9a. Trim steel mesh locally as required. Touch up paint per ICA-D350-607 Section 5.1 Item 4. Transfer mark and drill 2X Ø0.194 holes thru the Basket Lid Square tube structure as shown in Detail R. Install the D3953-15 Gas Spring Bracket & D3953-17 Gas Spring Spacer using 2X AN3C15A BOLT, 2X NAS1149C0332R Washer & 2X MS21043-3 Nut as shown in View T-T.
- 4.2.4 Locate the D3953-5 Gas Spring Stud as shown in Figure 9a. Trim Steel Mesh Locally as required. Touch up paint per ICA-D350-607 Sections 5.1 Item 4. Transfer mark and drill 2X Ø 0.194 holes thru the Basket Base square tube structure as shown in Detail S. Install 2X AN3C11A Bolt, 2X NAS1149C0332R Washer & 2X MS21043-3 Nut as shown in View U-U. Install the rod end of the D3969-1 Gas Spring onto the D3953-5 Gas Spring Stud using 1X D3953-9 Gas Spring washer 1X NAS1149C0432R Washer, 1X AN310-4 Castellated Nut & 1X MS24665-212 Cotter Pin as shown in View U-U. Install Cotter Pin per MS33540 or AC43.13 Chapter 7-127.
- 4.2.5 Insert the D3953-3 Gas Spring Stud into the D3953-15 Gas Spring Bracket & insert the D3953-7 Gas Spring Spacer onto the D3953-3 Gas Spring Stud as shown in View T-T. Raise the Basket lid and install the D3969-1 Gas Spring onto the D3953-3 Gas Spring Stud and fasten in place using 1X D3953-9 Gas Spring Washer 1X NAS1149C0432R Washer, 1X AN310-4 Castellated Nut & 1X MS24665-212 Cotter Pin as shown in View T-T. Install Cotter Pin per MS33540 OR AC43.13 Chapter 7-127.  
**NOTE:** The D3953-3 Gas Spring Stud can be held in place with a 9/16 open end spanner/wrench.  
**NOTE:** With the lid in the closed position the Gas Spring should not be fully compressed.



**D350-607-041 HELI-UTILITY- BASKET™**



**D350-607-045 HELI-UTILITY- BASKET™**



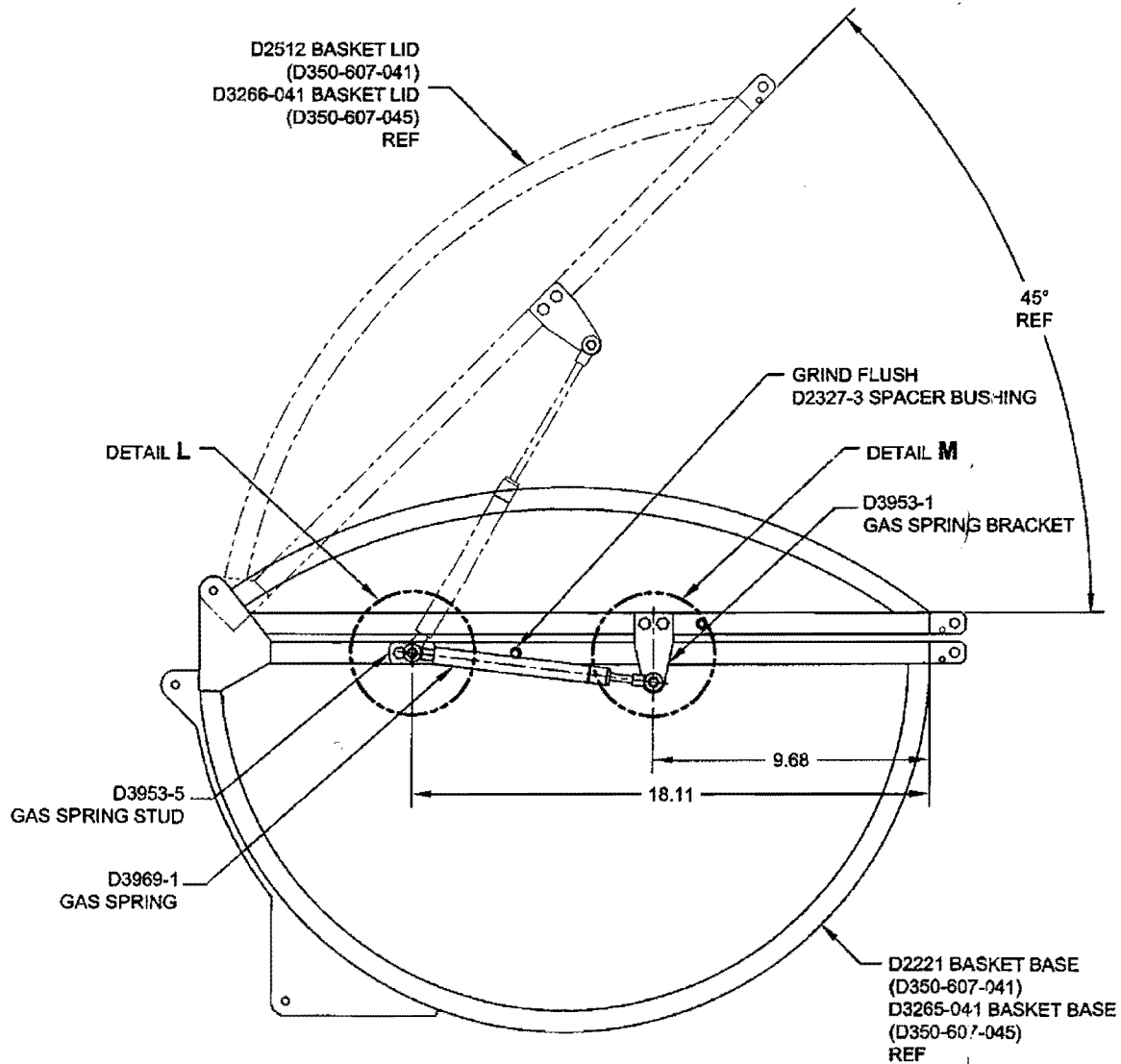
**VIEW C-C**  
**PROP ARM DETAIL**

**Figure 5 – Basket Replacement Parts**

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Revision: **A**

Date: 10.03.10



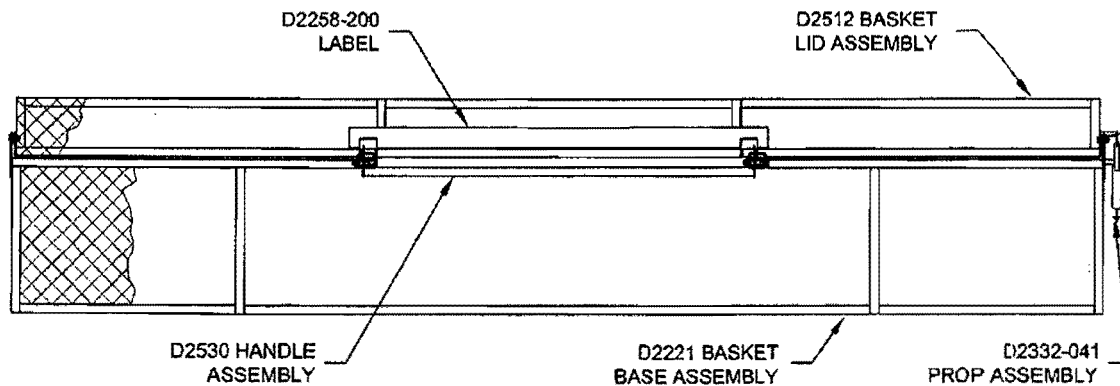
**D350-607-141 AUTOMATIC LID OPENER INSTALLATION**  
(BOTH ENDS)

**D350-607-145 AUTOMATIC LID OPENER INSTALLATION**  
(1 END ONLY)

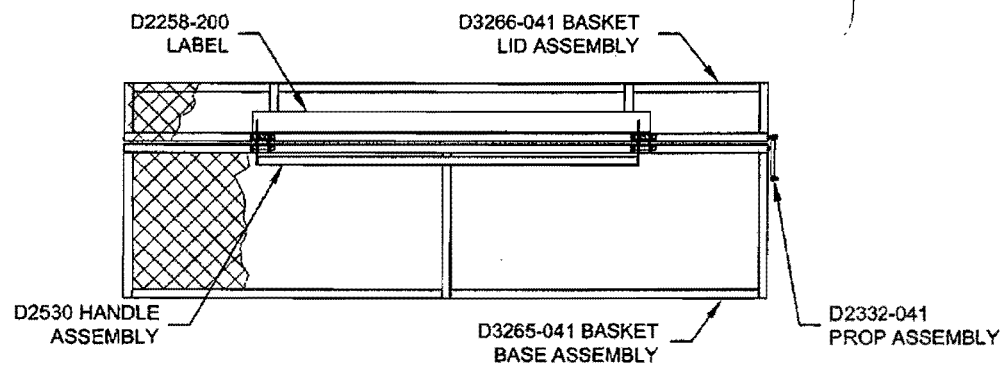
**Figure 8a – Automatic Lid Opener Installation**

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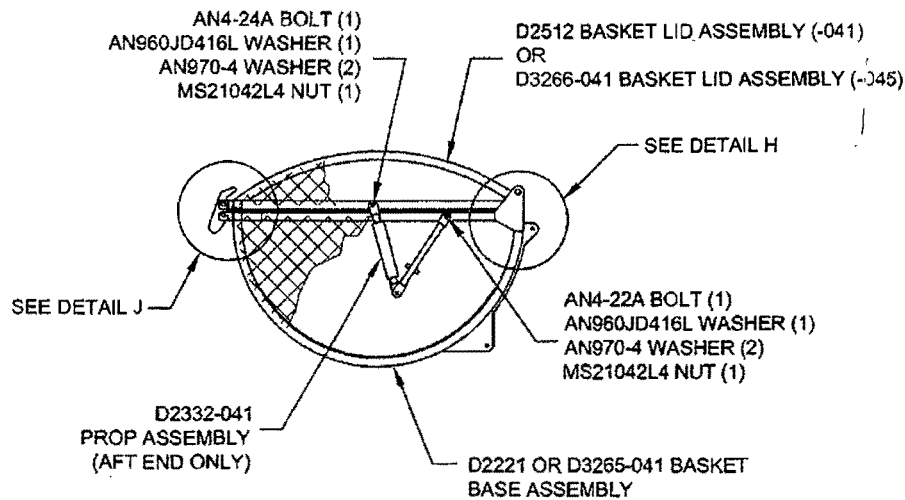
Revision: **A**  
Date: 10.03.10



**D350-607-041 HELI-UTILITY- BASKET™**



**D350-607-045 HELI-UTILITY- BASKET™**



**VIEW C-C**  
**PROP ARM DETAIL**

**Figure 5 – Basket Replacement Parts**

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